



An Energy Efficiency Workshop & Exposition

Palm Springs, California

## **Energy Savings Performance Contracting (ESPC)**

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## ***Overview***

- **Energy Savings Performance Contracting (ESPC);  
Definition and Need**
- **USACE Huntsville, DOD ESPC Program**
- **DOE SUPER ESPC Program**
- **DOD/DOE Program Differences**
- **Lessons Learned/Questions and Answers**

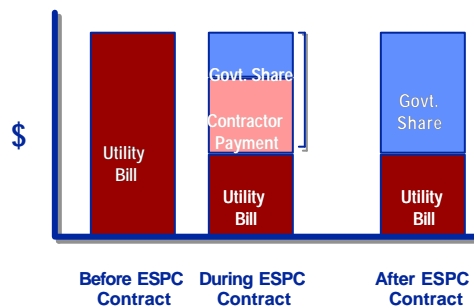


## *Energy Savings Performance Contracting*

**Definition:** A contracting method where the contractor provides capital energy improvements and maintains them in exchange for a portion of the energy and energy-related savings generated.



## *How ESPC Works*





### *EPACT, Executive Order 13123*

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- Reduce 1985 energy consumption by 35% by 2010.
- Demonstrate energy technology (showcases).
- EO 13123, Section 402: Agencies shall maximize use of available alternative financing mechanisms, including ESPC.
- Reduce greenhouse gas emissions 30% below 1990 levels by 2010.



### *Why Energy Saving Performance Contracting ?*

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- Declining budget for installation of state-of-the art, energy efficient equipment and the replacement of failed and failing systems
- Fewer maintenance personnel
- Preventative maintenance no longer possible





## *The Value of 3<sup>rd</sup> Party Financing*

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- **FACT:**
  - 3<sup>rd</sup> Party financing will eventually cost more than directly funding projects due to the compounding value of interest
  - It does allow you to obtain new energy- efficient infrastructure with \$0 in capital outlay



## *Eligibility Requirements (to use DOD/DOE contracts)*

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- **You must be:**
  - A federal agency with government owned facilities
    - No leased facilities
  - Located within a DOE or DOD region, or international federal facility (DOE tech specific)



## *Corps of Engineer's ESPC Program*

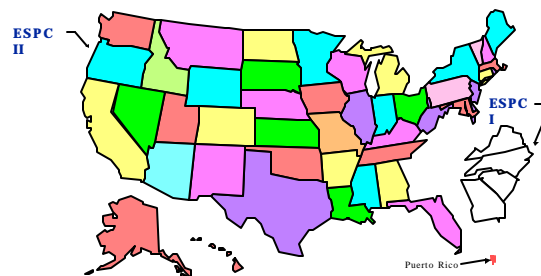
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- Over 16 years of experience in business
- ESPC team essentially in one building - produces synergistic results for customers
- Ability to use national and international Corps assets to leverage customer support
- Over **\$378 Million** in ESPC awards (investment) and over **\$117 Million** in avoided costs to date



## *Corps of Engineer's ESPC Program*

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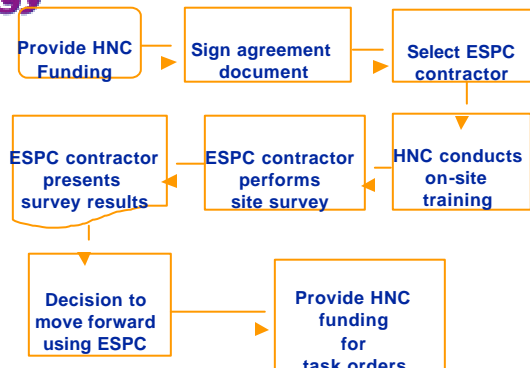


## Corps of Engineer's ESPC Program

- **Corps of Engineer's cost structure:**
  - Labor & travel costs are not pre-priced
  - Provides cost on project by project basis
  - Full “turn key” support (technical, legal, contracting, project management)
  - Current return on investment 50 to 1
  - Quick start quantifies ESPC potential (approx. corps cost: \$13,000 )
  - Contractors provide an estimate of their investment by project



## ESPC Quick Start Process



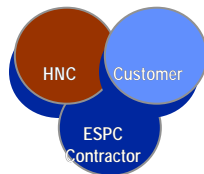


## Site Survey Results

Project Description	Contractor Investment	Submit for Review	HNC Cost to Award	Projected Award Date
1 Upgrade Lighting	\$1,250,000	Mar 23, 2001	\$31,250	May 14, 2001
2 Boiler Upgrade	\$750,000	Jun 18, 2001	\$18,750	Aug 1, 2001
3 Electric Motors	\$800,000	Jul 22, 2001	\$20,000	Aug 30, 2001
4 Gas Heating	<u>\$1,200,000</u>	Sep 14, 2001	<u>\$30,000</u>	Nov 25, 2001
	\$4,000,000		\$100,000	



## Using HNC ESPC Contracts



Team puts together  
ESPC proposal



Customer and HNC review  
ESPC Proposal





## *Using HNC ESPC Contracts (Cont.)*



An acceptable proposal is awarded as a task order under HNC's ESPC Contracts



The contractor implements the projects included in the awarded task order



After Government concurrence that the terms of the task order have been achieved, the contractor may begin receiving payments



## *Resource Efficiency Manager*

### *Duties*

- Energy Manager Support
- Develop energy policies and implementation plan
- Develop Energy Awareness Program and Training
- Energy Accounting and Rate Analysis
- Energy Audits and Project Development
- Energy Program Support
- Apply for Rebates and Grants





## *Resource Efficiency Manager Funding*

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The following methods are available for funding the REM:

1. Installation provides funding from O&M budget
2. REM costs funded through existing energy savings projects
3. O&M funding combined with energy savings created by the REM



## *Lessons Learned*

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Review project after 1 or 2 years of operation.

Does project perform as expected ?

- Did contract vehicle work ?
- Is customer happy ?
- What would we do different ?





## *Lessons Learned*

### *What would we do different ?*

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- **Documentation of facility points of contact in proposal & M&V reports ?**
- **Witness of M&V testing ?**
- **Contact customer more often after project acceptance ?**
- **Insure that M&V process is adequately detailed in the proposal ?**



## *DOE SUPER ESPC PROGRAM*

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- Regional and Tech-Spec Awards in place for 25 years, with 25 year delivery order terms available
- Permit agencies to issue delivery orders at no cost
- Provides free DOE technical assistance through decision point for project
- Priced menu of services thereafter, with flexible payments through Interagency Agreements
- Provides DOE CO/COR and PM support throughout process at no charge
- Provides free Training workshops on ESPC itself, and how to issue delivery orders against contracts
- 78 agency awards to date, since 1998, with \$242 million in investment
- 80 Additional projects are currently CI-approved and in process



## *DOE Technical Support Available*

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### ➤ FEMP Services

- One-stop shop: project facilitators, agency technical & procurement assistance for energy and water projects
- Offers a menu of services. Government-identified project ~ \$50K estimate
  - Additional support available: a list of more specific FEMP, federal staff and DOE contractor support
  - Contractor-identified project ~ \$30K estimate
    - Free through initial proposal review



## *Definition of Super ESPC*

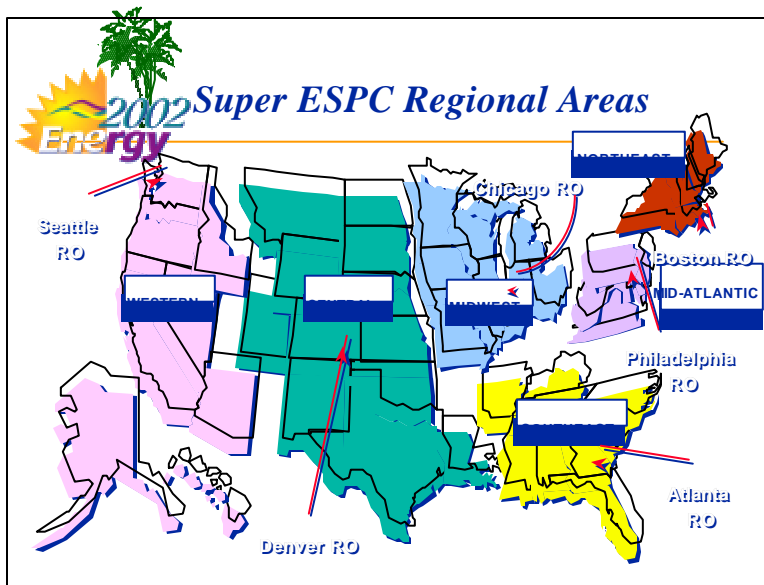
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- ◆ Covers all facilities in a geographic region
- ◆ Standardizes general terms and conditions
- ◆ Multiple award IDIQs to cadre of ESCOs
- ◆ Allows for revision of IDIQ terms by agency in delivery orders
- ◆ Projects executed by agency delivery orders placed against the IDIQ



## *The Two Types of Super ESPC*

- ♦ **Regional (by DOE region)**
- ♦ **Technology Specific (international)**
  - Geothermal Heat Pumps
  - Photovoltaics
  - Parabolic Troughs
  - Biomass and Alternative Methane





## *Routes to Issue a DO*

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▣ **Competitive:** Process is similar to conventional competitive delivery orders.

→ Government-Identified

▣ **Single-Source:** CICA processes used in placing IDIQs allows for single-source DOs without protest.

→ Contractor-Identified

No CBD notice is required for either approach.



## *Differences Between Approaches*

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▣ **Project Definition:**

➤ Contractor-identified project

- ESCO defines project, recommends ECMs, and submits an initial proposal, as approved to do so

➤ Government-identified project

- Agency defines project's technical specifications and assembles information on existing equipment (Site Data Package) and requests multiple initial proposals (Not happening much)



### *Potential Advantages of Contractor-ID Approach*

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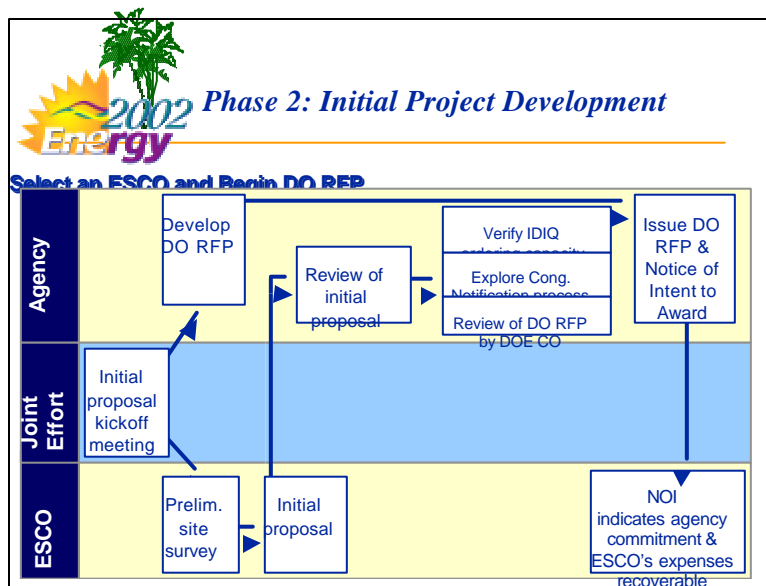
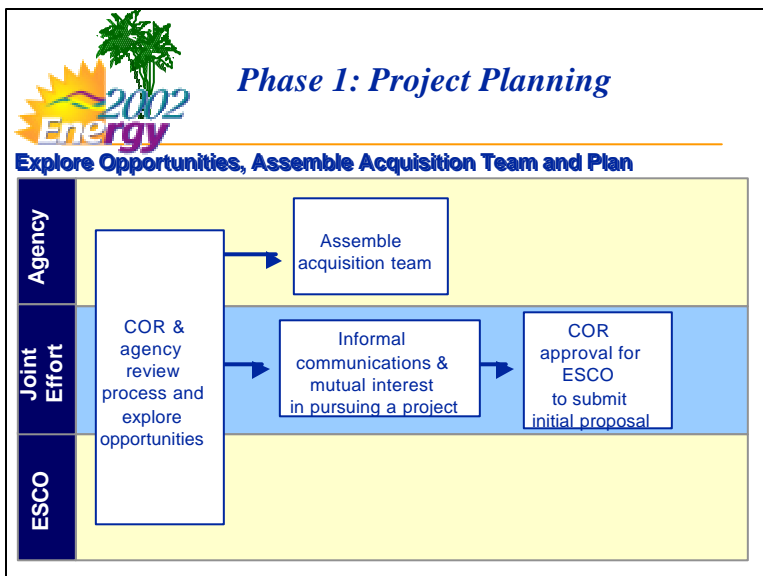
- ♦ Allows ESCO to get things started
- ♦ Avoids SDP development & review of multiple proposals
- ♦ Typically results in more informal and faster process
- ♦ Draws on project development expertise of ESCO industry
- ♦ Allows govt. to focus its resources
  - studying ESCO's offer
  - working w/ESCO to develop scope of project
  - verifying price reasonableness and realism

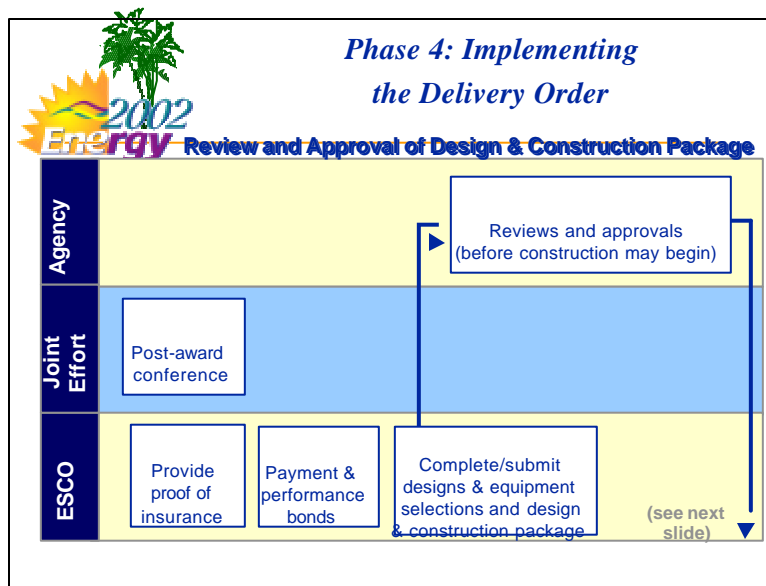
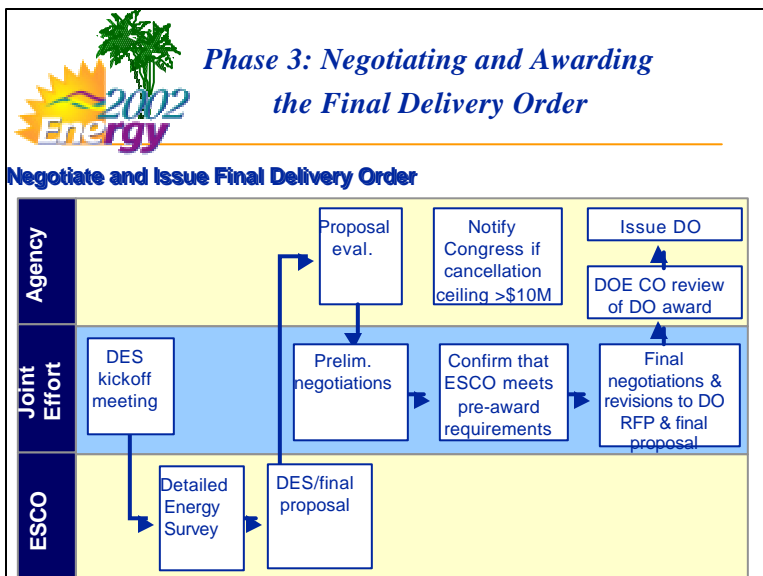


### *How to Pick the Contractor*

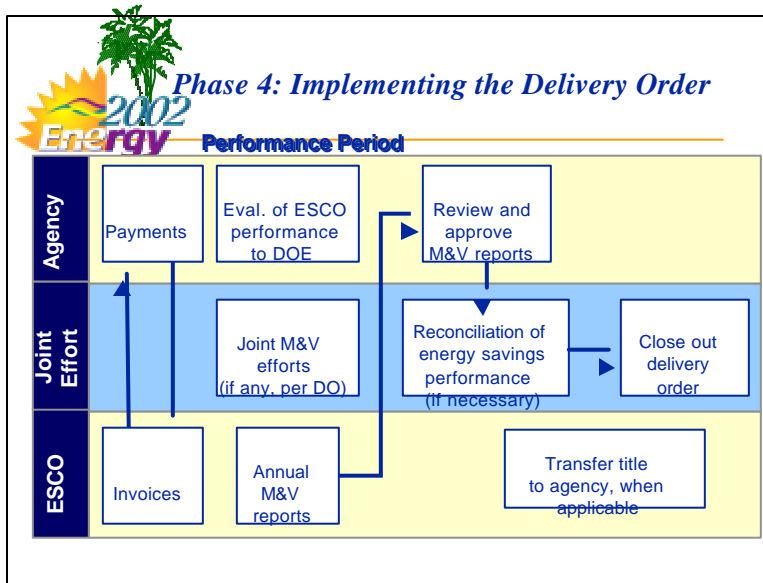
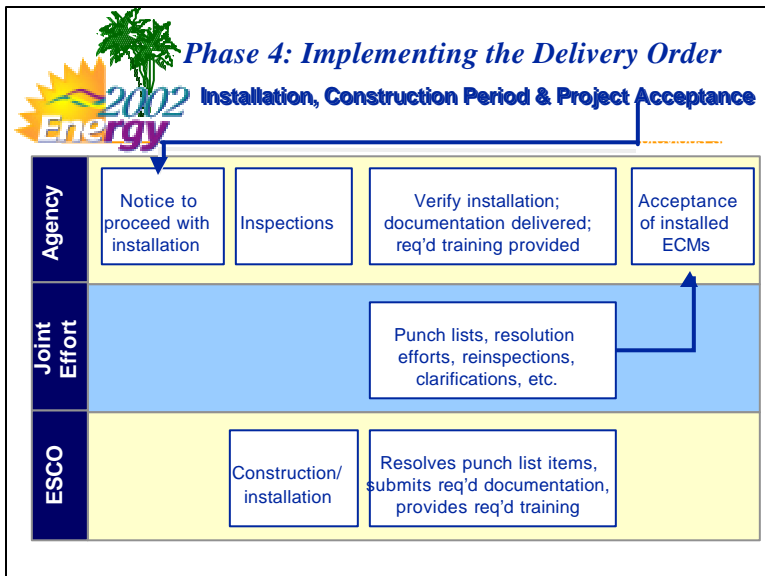
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- Agency Decision
- Based on review of qualifications, past performance/references/ESCO interest/etc.
- Agency need not consider all eligible ESCOs
- No protestability of decision/no complaints to date
- ESCO chosen provided CI approval by DOE COR before any proposal











## *DOD/DOE DIFFERENCES*

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### □ DOD:

- DOD handles procurement
- Cost of support priced by project
- Depleting term for DO's, with term of contract

### □ DOE:

- Agency issues and administers DO with DOE procurement /legal/COR assistance
- Cost of support services free with optional priced services available
- Up to 25 year delivery order term available